PIO / DIO Document: 15.130.00 10/05/10

TOYOTA **Fog Lights Tundra** 2011 -

Part Number: 00016-34530

Accessory Code: LF1



Conflicts

Note: Conflict the LF1 code with the following factory codes that contain factory fog lights or a non-chrome bumper.

BX or OF or RD or SM Factory codes that include factory Fog lights.

Kit Contents

Item#	Quantity Reqd.	Description
1	2	Fog Lamps
2	2	Fog Lamp's Bezels
3	1	Switch Assembly
4		
5		

Hardware Bag Contents

Item#	Quantity Reqd.	Description
1	1	Wire Harness
2	1	Switch Harness
3	2	SPST Relays
4	15	Wire Ties
5	2	T-Taps
6		

Additional Items Required For Installation

Item#	Quantity Reqd.	Description

Recommended Tools

Recommended 1 oois	
Safety Tools	
Safety Glasses	
Electrical tape	
Special Tools	
Installation Tools	
10mm wrench	36in lbs Torque Wrench
Phillips Screw Driver	
Pliers	
Side Cutters	
Special Chemicals	
3M Silicon Sealant	

Color Applicability/Trim Level

Accessory					
Vehicle/Trim Color					

General Applicability

Chrome Bumper Only	
Chrome bumber Only	

Recommended Sequence of Application

Item #	Accessory	
1		
2		
3		

*Mandatory

Legend



STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.



OPERATOR SAFETY: Use caution to avoid risk of CAUTION: A process that must be carefully observed



in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.



TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.



REVISION MARK: This mark highlights a change in installation with respect to previous issue.



SAFETY TORQUE: This mark indicates that torque is related to safety.

SPECIAL NOTE: Installation Sequences

After TMS and Safety mandated preparatory steps have been taken, the installation sequence is the suggested method for completing the accessory installation. In some instances the suggested sequence is written for one associate to install and in others the sequence is given as part of a team accessory installation. Unless otherwise stated in the document, the associates may perform the installation steps in any order to make the installation as efficient as possible while maintaining consistent quality.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure quality installation. These guidelines can be found in the Accessory Installation Practices document.

This document covers such items as:

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc)
- Safety (eye protection)
- Vehicle Disassembly / Reassembly (panel removal, part storage, etc)

Preparation



Disconnect the positive terminal of the battery

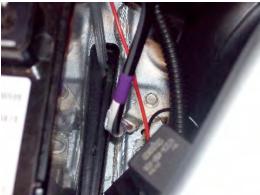
Installation

- Secure the <u>Relay</u> to the wire loom next to the Battery with wire ties. Secure top and bottom with wire ties (see Picture 1).
- Attach the ring terminal with 2 black wires to the 10mm bolt next to the relay (see picture 2)



Picture 1

 Connect the ring terminal from the relay (12v red wire) to the positive terminal of the battery)



Picture 2

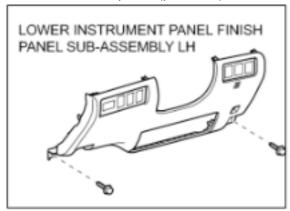
4. Locate the large vehicle harness grommet on the left side. Cut the auxiliary wiring access nipple off the grommet and push small 2-wire connector through firewall. Note: Extra caution should be taken not to damage connector. Seal with 3M Silicone sealant (see picture 3)



Run the fog light wire harness on the driver side of the car. Use wire ties as needed

Vehicle Disassembly

5. Remove the screws on the lower part of the instrument panel (picture 6)



Picture 6

- 6. Remove lower instrument panel sub assy (picture 6)
- 7. Mount <u>switch</u> into switch knockout on left side of dash (see picture 9)



Picture 9

8. From inside the cabin, locate the small connector that was pushed through in step4. It will be the grommet above the gas pedal (see picture 10)



Picture 10

9. Install switch harness (see picture 11)



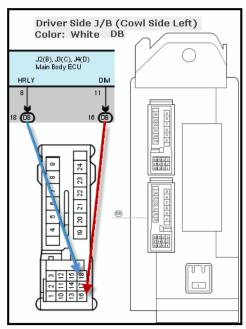
Picture 11

 T-tap green/black wire from fog light harness to connector DB pin 16, red wire

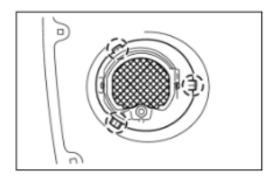
(bottom pin on right). Connector DB is in the driver's side junction box, located on the left side of the steering column (picture 13)

11. T-Tap orange/black wire from fog light harness to connector DB pin 18, blue wire (right side third pin up from bottom). Connector DB is left of steering wheel (picture 13)

New picture 13



- 12. Secure with wire ties.
- 13. Reinstall dash panels
- 14. Route the fog light wire under car.
- 15. Remove splash shields
- 16. Remove both front bumper hole covers. Detach wire harness clamps and release the 3 claws and remove (picture 14)



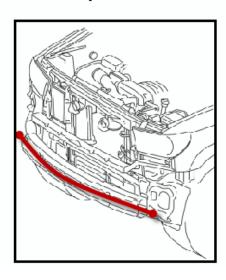
Picture 14



Picture 15

- 17. Re-secure detached wire harness and plug in left side fog light into harness plug and secure with wire ties. Snap fog light bezel into bumper hole (picture 15)
- Run right side of wire harness through bumper sub frame to right fog lamp opening (see picture 16)

New picture 16



Fish passenger side harness through bumper sub assy Picture 16

- Plug harness into right fog light. Install wire ties to secure to vehicle. Snap fog light bezel into bumper hole
- 20. Reattach the lower splash shields

21. Re-connect battery

Check System for Operation

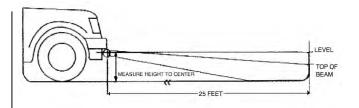
- 1. Reconnect battery negative terminal, 36in lbs
- 2. Turn on headlamp low beams, then press fog light switch to "ON" position. Fog lights should be working. Fog lights will only work when the low beam headlamps are "ON". Fog lights will NOT work when the high beam headlamps are "ON"

Fog Light Aiming

Traditional fog lights are usually mounted in the front bumper about 10-24 inches from the ground. There are two important issues to address when installing fog lights: the first is to minimize the amount of return glare into the drivers eyes, and the other is to minimize the glare into oncoming eyes. Both of these issues must be accomplished while putting as much light as possible on the road.

These fog weather light aiming instructions are suggestions taken from common practice and the S.A.E. standard J583. Some modifications to these instructions may be necessary to minimize glare.

Visual aim is made with the top of the beam 4 inches below the lamp center at 25 feet with the lamp facing straight forward (see picture 18)



Picture 18

Checklist - these points MUST be checked to ensure quality installation

Check	Look For:			
Accessory Functions Checks				
	1			
Fog Lights function				
All Panels snapped into place	Loose panels and switches			
■ Fog Lights	Visually confirm lights are straight forward			
Battery Terminal	Re-torque negative battery terminal to 36 in-lb			
Vehicle Function checks				
■ Check functions all switch functions				

VEHICLE FUNCTION CHECK

AFTER ALL PANELS, COVERS, AND COMPONENTS HAVE BEEN REINSTALLED, THAT WERE REMOVED, TEST THOROUGHLY, ALL MECHANICAL AND ELECTRICAL COMPONENTS DISCONNECTED AND OR REMOVED FROM THE VEHICLE DURING THE INSTALLATION OF THIS ACCESSORY.